CLAIMS:

1.   A method of testing the integrity of permeable hollow membranes used for filtering solids from a liquid suspension including:

(i)   providing a pressure differential across the walls of permeable, hollow membranes immersed in the liquid suspension, said liquid suspension being applied to the outer surface of the porous hollow membranes to induce and sustain filtration through the membrane walls wherein:

(a)   some of the liquid suspension passes through the walls of the membranes to be drawn off as permeate from the hollow membrane lumens, and

(b)   at least some of the solids are retained on or in the hollow membranes or otherwise as suspended solids within the liquid surrounding the membranes,

(vi)   backwashing the membrane pores by applying a gas at a pressure below the bubble point to liquid permeate within the membrane lumens to displace the liquid permeate within the lumens through the membrane pores,

(vii)   performing an integrity test on the membranes by

a.   allowing the gas pressure on the lumen side of the membrane walls to increase to a predetermined level above the pressure on the other side of the membrane walls,

b.   isolating the lumen side of the membranes,

c.   measuring the reduction in gas pressure on the lumen side of the membrane walls resulting from gas passing through the membrane walls over a predetermined period,

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d. comparing the measured reduction in pressure against a

predetermined value to determine the integrity of said

membranes,

(viii)   refilling membrane lumens with liquid, and

(ix)   recommencing said filtration through the membrane walls.

2.   A method of testing the integrity of permeable hollow membranes used for

filtering solids from a liquid suspension according to claim 1 wherein the integrity

test during each backwash of the membranes.

3.   A method of testing the integrity of permeable hollow membranes used for

filtering solids from a liquid suspension according to claim 1 wherein the integrity

test after a predetermined number of backwashes of the membranes.

4.   A method of testing the integrity of permeable hollow membranes used for

filtering solids from a liquid suspension according to any one of claims 1 to 3

wherein predetermined value corresponds to a logarithmic reduction value of 4.